# Updates on Introduction of Allergenic Foods during Complementary Feeding

#### **Outdated Information**

- Dietary Risk Associated with Complementary Feeding Practices 428 (2005), Page 4:
  - "The introduction of the major food allergens such as eggs, milk, wheat, soy, peanuts, tree nuts, fish, and shellfish should be delayed until well after the first year of life as guided by the health care provider".
- American Academy of Pediatrics (2000)<sup>2</sup>
  - "delayed introduction of highly allergenic foods in infants at high risk for allergic disease to prevent development of future allergy
  - Cow milk until 1 year; egg until 2 years; and peanut/tree nuts, and fish until 3 years



#### **Current Information**

- Since 2008, many studies show no convincing evidence for delaying introduction of highly allergenic foods to prevent allergies
- These studies have been supported by many professional societies
  - American Academy of Pediatrics (AAP)
  - American Academy of Allergy, Asthma & Immunology (AAAAI)
  - European Academy of Allergy and Clinical Immunology (EAACI)
  - European Society for Pediatric Gastroenterology, Hepatology, and Nutrition Committee



# American Academy of Allergy, Asthma & Immunology (2012)<sup>2</sup>

Study Conclusions: Primary Prevention of Allergic Disease Through Nutritional Interventions

- Maternal avoidance of highly allergenic foods during pregnancy and lactation is not recommended
- Breastfeeding for at least 4 months showed lower incidence of cow's milk allergy only, in first 2 years of life
- <u>No reliable evidence</u> showing <u>delayed</u> introduction to highly allergenic foods prevents allergies
- Limited data shows <u>preventative nature</u> of introducing highly allergenic foods starting at 4-6 months
  - Not definitive

# European Academy of Allergy and Clinical Immunology (EAACI) (2014)<sup>3</sup>

Study Conclusions: *EAACI Food Allergy and Anaphylaxis Guidelines: Primary Prevention of Food Allergy.* 

- Normal diet, without restrictions, for mother during pregnancy and lactation
- Evidence <u>does not justify</u> recommendations about either <u>withholding or</u> <u>encouraging exposure</u> to potentially allergenic foods
  - After 4 months, once weaning has commenced
- Small amount of evidence to support breastfeeding to prevent development of food allergy
  - Levels of immunomodulatory components in breast milk varies from mother to mother
  - Makes studying effect of breast milk on allergies hard

# Journal of Allergy and Clinical Immunology: Investigation of Peanut Introduction (2015)

Study: Consensus communication on early peanut introduction and the prevention of peanut allergy in high-risk infants

- **Established Guideline**: Early introduction of highly allergenic foods, such as peanut, <u>need not be delayed past 4 or 6 months of life</u><sup>1</sup>
  - Before 2015: no active recommendation to introduce peanuts between 4-6 months in high-risk infants

#### 2015 LEAP study shows:

 "Successful 11% to 25% absolute reduction in the risk of peanut allergy in high-risk infants (and a relative risk reduction of up to 80%) if peanut was introduced between 4 and 11 months of age"<sup>1</sup>

## Interim consensus from AAP, AAAAI, EAACI and others<sup>1</sup>:

- Practice of early peanut introduction is safe and effective in selected highrisk infants<sup>1</sup>
- Health care providers <u>should recommend</u> introducing peanut-containing products into the diets of "high-risk" infants early between 4 and 11 months of age<sup>1</sup>
  - Delaying the introduction of peanut can be associated with an increased risk of peanut allergy
  - Consult physician for very high risk- positive skin test
- Overall: No recommendations to delay in general public; recommended for high-risk infants between 4-11 months
  - More extensive guidelines to come from the NIAID Working Group and EAACI Guidelines Group

# Randomized Trial of Introduction of Allergenic Foods in Breast-Fed Infants (2016)<sup>4</sup>

- 2016: New England Journal of Medicine
  - Follows up LEAP peanut study to look at other foods and timing
- To find out if introduction at 3 months is more effective in reducing allergies than 6 months.
- Foods Tested: peanut, cooked egg, cow's milk, sesame, whitefish, and wheat
- No significant reduction when introducing at 3 months vs 6 month standard



#### Research Conclusion: Recommendations

- For all infants, exclusive breastfeeding is recommended for at least first 4–6 months of life (AAP).
  - WHO: first 6 months of life
- Normal diet, without restrictions, for mother during pregnancy and lactation<sup>2,3</sup>
- No evidence has been shown to support delaying the introduction of potential allergenic foods (+1 year)<sup>1-4</sup>
- Recommended early peanut introduction for high risk infants (4-11 months)<sup>1</sup>
- No concrete evidence showing reduction of allergies when introduced to allergenic foods at 3 mo vs 6 mo for major allergens<sup>4</sup>



## **Counseling Points: Take Away**

- Normal diet with no restrictions for mom during pregnancy and lactation
- Recommend exclusive breastfeeding for at least the first 4-6 months of life
- No longer recommend delay of introduction of potentially allergenic foods for a normal/healthy infant
  - Nuts (including peanuts) and Tree nuts
  - Egg white
  - Fish/Shellfish
  - Cow's milk
  - Wheat and Soy
- High risk infant: encourage parent to talk to their health care provider about the new recommendations first



## How to Introduce Highly Allergenic Foods

- 1. Minimum weaning age: 4-6 months<sup>3</sup>
  - a. May not be developmentally ready beforehand
- 2. Try at home, not at daycare/restaurant<sup>2</sup>
- 3. Introduce new foods at a rate of every 3-5 days, to isolate any reactions<sup>2</sup>
  - a. Start small!
- 4. Any at-risk child, consult with pediatrician



## WIC Materials That Will Be Changed

#### **Moving to Table Foods: 9-12 Months**

By now, your baby is drinking from a cup and finger feeding. Give your baby a spoon to practice eating. It will be messy at first!

- Offer at least three meals and two snacks every day.
- Try soft or mashed foods like soft fruits, vegetables, and pasta cut into bite-sized pieces. Babies like to practice picking up small things. Babies who can feed themselves soft foods do not need baby foods.
- Offer foods for chewing like dry toast, crackers, and bite-size pieces of cereal. A serving of bread is 1/2 slice. Two crackers are a serving (one if the crackers are big).
- Limit desserts and other high fat and high sugar foods. Babies don't need them.
- Cut foods into small pieces and remove seeds and bones. Avoid foods that may cause choking such as, but not limited to, hot dogs, popcorn, chips, pretzels, hard candy, raw carrots, dried fruits, peanut butter, marshmallows and whole grapes.
- L Babies over 6 months old may need a luoride supplement. Check with your doctor or dentist.

#### Encourage Drinking from a Cup

- L If you stop breastfeeding, wean to in n-fortifed infant formula in a cup.
- Let If you are feeding formula, offer it baby off the bottle soon after the fin birthday.

#### Avoid These Foods the First Year

- Nuts (especially peanuts), egg whites, shellfish and cow's milk can cause allergies.
- Honey and foods made with honey (including honey graham crackers) can make babies very sick.

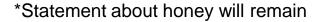




### **Starting Foods:** 6-9 Months

#### **Adding Other Foods**

- When your baby is eating cereal well, introduce strained vegetables, fruits, and meats. Introduce only one new food at a time and 5-7 days apart. The order doesn't matter. Watch for reactions like a rash.
- Mash or strain table foods or buy baby foods.
- Offer new foods many times. Some babies need to see a food 15-20 times before they accept it!
- Babies over 6 months old may need a fluoride supplement. Check with your doctor or dentist.
- Avoid nuts (especially peanuts), egg whites, shellfish, cow's milk, honey, and foods made with honey (such as honey graham crackers) the first year. These foods can cause allergies or make babies very sick.



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